Nico D'Cotta
Backend Software Engineer

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EXPERIENCE

06/2020 – today
part-time,
then Staff Engineer,
then Senior Engineer

Senior Software Engineer, at **Blockchain.com**

Large crypto finance house (including a wallet and an exchange) with retail and institutional businesses.

Owner of several **JVM** (mainly **Kotlin**) real-time financial services critical for business operation and central to to user experience, reporting, and auditing; like ledger-keeping/accounting and indicative pricing.

Designing and scaling up **stateful distributed** systems with an event-driven architecture.

Reviewing systems' architecture designs and software development methods to cultivate **sustainable engineering practices** and achieve **operational excellence** within the wider company.

Implementing application **performance monitoring** and performing **production incident response**.

06/2019 – 10/2019
intern

Software Engineer, at **Emit, Inc.**

Four-person startup with its own smartwatch aiming to provide time-analytics to institutional customers.

Provided real-time insights on customer data by developing data processing pipelines and libraries in **Kotlin** and **Python** on top of serverless tech on **AWS (Lambda, DynamoDB, ElasticSearch)**.

EDUCATION

2018 – 2022

MEng Computer Science – First Class Honours, at **Imperial College London**

Focus on Software Engineering, Distributed Systems, Network and Computer Security, Systems and Data Scalability, Logic-based AI, Type Systems for Programming Languages, Simulation & Modelling.

Additional Business School modules include Project Management, Finance & Financial Markets, and Business Strategy.

2015-2018

French Baccalaureate (S-SI) – Highest Honours, at **French Lycée of Madrid**

High-school diploma with **Engineering Sciences with Further Maths** specialisations, and completed optional Portuguese and Music modules.

Extracurriculars include two Model UNs, Drama, Choir, student representative, competing in the basketball team.

PROJECTS

see my full portfolio at nico.dcotta.eu

`AWS (Lambda, DynamoDB, EC2), Kotlin, VueJS`

DJStreamr, collaborative streaming service for DJs
djstreamr.com

Music synchronisation protocol implemented as a webapp with an event-driven platform architecture which leverages serverless technology.

`Elixir, Paxos`

Multi-Paxos
cottand/multi-paxos

Implementation of a variation of the Paxos consensus algorithm, as specified in the paper *Paxos Made Moderately Complex*.

`Kotlin, JVM bytecode, ARM11 assembly`

WACC, multiplatform compiler
cottand/WACC

Multiplatform compiler from WACC (a toy language) to JVM bytecode and ARM11 64-byte assembly that supports basic constructs like stack-allocated primitives, and heap-allocated arrays and pairs.

`C, x86 assembly`

PintOS, UNIX-like OS
pintos-os.org

Pint-sized OS with features such as advanced scheduling, paging, virtual memory and user programs with support for some of the C stdlib.

TECHNOLOGIES

Proficient in JVM (Kotlin, Java), Gradle

Experience with Python, C, Haskell, Typescript, Elixir

Nomad, AWS (Lambda, DynamoDB EC2, S3, CodeDeploy, API Gateway)

gRPC + protobufs, Kafka, Akka, PostgreSQL, Docker, APM, ConcourseCI, TravisCI, GitlabCI, React, VueJS

Object-oriented, Functional, Actor-oriented, and Procedural programming.

HOBBIES

I enjoy DJing as well as kitesurfing and rock climbing!

LANGUAGES

English - bilingual (C2 certification)
Spanish - native
French - bilingual
Portuguese - advanced level

SKILLS + FEEDBACK

"Cool under pressure"
"Pleasant to work with"
"Aware of product quality"
"Knows which battles to pick"
I can google well!